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Predicted Places.

EPOCH.	CELORIA, 1889.0.				LEUSCHNER, 1880.0.			
	θ	Diff.	p	ρ	θ	Diff.	p	ρ
	°		°	″	°		°	″
1892.00.....	29.31		+0.02	0.86	27.34		+0.08	0.86
		1.97				1.83		
.25.....	31.28			0.89	29.17			0.90
		1.83				1.70		
.50.....	33.11			0.92	30.87			0.93
		1.71				1.59		
.75.....	34.82			0.95	32.46			0.96
		1.61				1.49		
1893.00.....	36.43		+0.03	0.98	33.95		+0.08	0.99
		1.51				1.39		
.25.....	37.94			1.01	35.34			1.02
		1.42				1.31		
.50.....	39.36			1.04	36.65			1.05
		1.35				1.24		
.75.....	40.71			1.07	37.89			1.08
		1.29				1.17		
1894.00.....	42.00		+0.03	1.10	39.06		+0.09	1.11
		1.22				1.11		
.25.....	43.22			1.13	40.17			1.14
		1.15				1.05		
.50.....	44.37			1.15	41.22			1.17
		1.10				1.00		
.75.....	45.47			1.18	42.22			1.20
		1.07				0.97		
1895.00.....	46.54		+0.04	1.20	43.19		+0.09	1.23

BERKELEY, CAL., June 4th, 1892.

A REPETITION OF FOUCAULT'S PENDULUM EXPERIMENT.

By TORVALD KÖHL, of Denmark.*

On the 12th and 22d of April I made a public trial of FOUCAULT'S Pendulum Experiment in the Cathedral of Aarhus. The pendulum had a length of 21.1 metres (69.22 feet) and weighed 35 kilogrammes (77.17 lbs. avoirdupois), the cylinder being of lead. The steel wire was fastened above to an iron frame, in the upper part of which the end of a small cone served as the point of suspension of the pendulum; the cone resting in a depression made in an iron rod. The rod itself was placed across a hole in the arch of the cupola, the latter having a thickness of one foot and the hole being two inches in diameter. A sheet of paper, upon which a circle was drawn, was placed exactly under the point of the pendulum. As the hourly deviation for Aarhus (56° north latitude) amounts to very nearly 12°, two principal radii were drawn, forming an angle of 12° with each other. The radii were extended by means of chalk lines to a length of 57 inches, so that every degree of the circumference was just one inch long. Two burning candles were placed outside of the circle, in the prolongation of the radii, in order to show the deviation of the pendulum more distinctly. At the beginning of the experiment the point of the pendulum also passed through two layers of sand, placed on opposite sides of the circle.

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* Translated for the Society by F. R. ZIEL.

As the thread was burned and the pendulum began to move, the organ commenced to intone and the audience of 200 people followed, with the greatest attention, the slow turning of the ground in reference to the undeviating plane of oscillation of the pendulum.

The pendulum made 13 oscillations in a minute, and when it had completed 65 oscillations its point showed exactly the calculated deviation of 1° towards the west. After an hour had elapsed the pendulum had just passed the 12th degree of the circle. Later on trials were made to ascertain what influence side currents of air would have on the movement of the pendulum, but although large plates were swung close to the pendulum, no effect upon the same could be detected. As it was also important to determine the value of the inertia, experiments were made with the gyroscope for that purpose.

THE RUTHERFURD PHOTOGRAPHIC MEASURES OF THE *PLEIADES*.

By Dr. W. L. Elkin,
Astronomer of the Observatory of Yale University.

The publication of the large collection of material contained in the Rutherfurd photographic plates, of whose value there can hardly now be two opinions, has been commenced by the Columbia College Observatory, and in an interesting paper (*Contributions from the Observatory of Columbia College*, No. 3),